



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,449	11/17/2005	Kevin James Soper	Soper-video	4639
7590 O M (Sam) Zaghmout 8509 Kernon Ct Lorton, VA 22079			EXAMINER SEVER, ANDREW T	
			ART UNIT 2851	PAPER NUMBER
			MAIL DATE 03/03/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/550,449

**Applicant(s)**

SOPER ET AL.

**Examiner**

ANDREW T. SEVER

**Art Unit**

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 14 is/are rejected.
- 7) ☒ Claim(s) 6-13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/5508)
- Paper No(s)/Mail Date \_\_\_\_.

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Objections*

1. Claims 6-13 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-5 and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Nakano et al. (US 6,746,125.)

*With regards to applicant's claim 1:*

Nakano teaches in figures 1-9 a projector including:

A housing (outside casing shown for example in figure 2 part 2 is the housing);

and

An optical engine (the optical engine is shown in figure 7), said optical engine including a liquid crystal display (LCD) projector (parts 441 shown in figure 4 are LCD modulators this combined with projection lens 46 makes it a liquid crystal display projector) to project and image displayed in said LCD projector and further including an objective lens (projection lens 46 in figure 4 is an objective lens) to focus said image onto a distal surface therefrom.

*With regards to applicant's claims 2 and 4:*

As shown in figure 4 the light passes from the light source 413 through the following optical elements: absorption filter (UV filter which would absorb at least some heat as is claimed in applicant's claim 4), lenses 414, 416, polarizer 415 (as is claimed in applicant's claim 4), mirrors 424 and 421 and condenser lens 417 (as is claimed in applicant's claim 4) and LCD polarizer 417 (as is claimed in applicant's claim 4.)

*With regards to applicant's claim 3:*

As described in column 6 lines 1-7 the light source includes a parabolic mirror (412 in figure 4), which those of ordinary skill in the art would recognize make the light collimated (parallel).

*With regards to applicant's claim 5:*

As shown in figures 5, 7, and 8 the optical engine includes two sides (case 47 includes a right and left side respective of the projection lens), and top clip (part 57 shown in figure

8 and described as assisting in holding the various optical members in a fixed location in column 9 line 50 through column 10 line 14.)

*With regards to applicant's claim 14:*

Nakano teaches in figures 1-9 a projection apparatus including:

A housing (outside casing shown for example in figure 2 part 2 is the housing);

A light source (part 413 shown in figure 4) positioned within said housing;

A fan (parts 71 and 50 of figure 7 as well as 70 of figure 3) positioned within said housing;

an optical engine including a longitudinal base member adapted to house an objective lens at its front end, two side walls extending upwards adjacent its rear end, an upper clip forming an enclosure with said side walls and said base member, said enclosure adapted to hold spaced apart optical elements therein such that said optical elements and said objective lens are coaxially aligned, said optical engine positioned within said housing in front of said light source (As shown in figures 5,7, and 8 the optical engine includes two sides (case 47 includes a right and left side respective of the projection lens), and top clip (part 57 shown in figure 8 and described as assisting in holding the various optical members in a fixed location in column 9 line 50 through column 10 line 14)) ;

A substantially hollow channel extending between said optical engine and said housing (as shown in figure 6 channel 51, which is a hollow duct directs air (labeled B and A) from the optical engine to the housing; and

at least two cooling vents forming part of said housing, said first vent located substantially above said optical engine (vent 235 of figure 2 can be considered to be above the optical engine (above is a relative term, when the projector has vent 235 facing up, it is above), and said second cooling vent located at the rear of said housing (vent 24A in figure 1 can be considered to be at the rear of the housing when the projection lens is considered to be at the rear of the housing (rear or back and front are relative terms)), said fan drawing air from said first vent, through said channel and optical elements, and out of said housing through said second vent (See figure 6 which shows the direction of the air flow (A and B in figure 6)).

### *Conclusion*

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

US 2002/0163627 to Ohishi et al. teaches in figures 1-8 a projector that meets many of applicant's claimed limitations.

US 6,582,083 to Shiraishi et al. teaches in figures 2 and 3 a projector that includes exhaust ports, and an inner casing for securing optical components.

US 6,558,003 to Mihara teaches in figure 3 a projector with multiple exhaust ports and channels.

US 6,996,655 to Hara et al. teaches in figures 4 and 11 a projector that has a lower casing where air is exhausted from.

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANDREW T. SEVER whose telephone number is (571)272-2128. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diane Lee can be reached on (571) 272-2399. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew T Sever/ 02/21/2008  
Primary Examiner, Art Unit 2851